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## **CLAIMS**

1. Process for the preparation of a 2-(6-substituted)-1,3-dioxane-4-yl) acetic acid derivative according to formula 1,

wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are each independently a C1-4 alkylgroup or wherein R<sup>1</sup> and R<sup>2</sup> together with the C-atom to which they are bound form a 5- or 6-membered cycloalkyl and wherein Y stands for R<sup>A</sup>-CO- or for R<sup>B</sup>-SO<sub>2</sub>- with R<sup>A</sup>, R<sup>B</sup> are chosen from the group of alkyl or aryl with 1-12 C-atoms, from its corresponding 2-(6-substituted)-1,3-dioxane-4-yl) acetic acid derivative according to formula 2,

$$R^1$$
  $R^2$   $QR^3$  (2)

wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as defined above and wherein X stands for a halogen, in the presence of a phase transfer catalyst and an oxylating agent, characterized in that a quarternary phosphonium ion according to formula 3,

wherein R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup> each independently stand for an alkyl, cycloalkyl, aralkyl or aryl with 1 to 12 C-atoms, is used as a phase transfer catalyst and an ion according to formula 4,

wherein Y is as defined above, is used as an oxylating agent.

- 2. Process according to claim 1, characterized in that R<sup>A</sup>, R<sup>B</sup> are chosen from the group of C<sub>1</sub>-C<sub>4</sub> alkyl or aryl with 6-10 C-atoms.
- 3. Process according to any of claims 1-2, characterized in that as a phase

transfer catalyst a quarternary phosphonium salt according to formula 3a,

$$(A^{-}) \qquad + \bigvee_{R4}^{R7} \begin{matrix} R5 \\ R6 \end{matrix}$$

$$(3a)$$

wherein R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> are as defined above and wherein A stands for a halogen, is used and in that an acid salt according to formula 4a.

$$(OY^{-})_{n} M^{n+}$$
 (4a)

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wherein Y is as defined above, wherein M stands for alkali metal or an alkaline metal, is used as an oxylating agent.

- 4. Process according to claim 3, characterized in that the quarternary phosphonium salt according to formula 3a is used in a molar equivalent amount of 0.05 to 0.7 relative to the amount of compound according to formula 2.
- 5. Process according to claim 4, characterized in that the quarternary phosphonium salt according to formula 3a is used in a molar equivalent amount of 0.1 to 0.5 relative to the amount of compound according to formula 2.
- 6. Process according to any of claims 1-5, characterized in that the process is carried out at a temperature between 100 and 160°C.
- 7. Process according to any of claims 1-6, characterized in that the process is carried out at a temperature between 110 and 150°C.
- 20 8. Process according to any of claims 1-7, characterized in that the compound according to formula 1 is tert-butyl 2-{(4R,6S)-2,2 dimethyl-6-[(methylcarbonyloxy)methyl]-1,3-dioxan-4-yl} acetate and in that the compound according to formula 2 is tert-butyl 2-[(4R,6S)-6-(chloromethyl)-2,2-dimethyl-1,3-dioxan-4yl]acetate.